

CLAIMS

1. An SiC-formed material produced by the CVD method using  
nitrogen gas together with raw material gases, characterized  
5 by possessing a specific gravity of 3.15 or more, light  
transmittance of 1.1 to 0.05%, and resistivity of  $3 \times 10^{-3}$  to  $10^{-5}$   
Qm.

2. A method of producing an SiC-formed material  
comprising producing an SiC film on the surface of a substrate  
10 by the CVD method using nitrogen gas together with raw material  
gases, and removing the substrate to obtain the SiC-formed  
material, wherein the raw material gas concentration, in terms  
of the ratio of the raw material flow rate (l/min) to the carrier  
gas flow rate (l/min) introduced into the CVD reaction chamber  
15 in which the substrate is located, is 5-15 vol%, the nitrogen  
gas concentration, in terms of the ratio of the nitrogen gas  
flow rate (l/min) to the raw material gas flow rate (l/min),  
is 10-120 vol%, the raw material gas retardation time defined  
by the following formula is controlled to 7-110 seconds, and  
20 the deposition rate is controlled to 20-400  $\mu\text{m}/\text{hour}$ ,

Raw material gas resident time (sec) =  
((Effective reaction volume in the reaction chamber  
(l))/(raw material gas flow rate (l/min))) $\times$ ((273+20)/  
(273 + Reaction temperature ( $^{\circ}\text{C}$ ))) $\times$ 60.